Talc slurry for pleurodesis

Note: Talc is an unlicensed medicine and should ONLY be used on the advice of a respiratory specialist.

Background

Pleurodesis is a procedure used to treat recurrent pleural effusions or pneumothorax. Talc is the chemical sclerosant of choice for pleurodesis.

Pre-medication

Intrapleural administration of sclerosing agents may be painful; significant pain is reported in 7% patients receiving talc. Discomfort can be reduced by administering local anaesthetic via the drain prior to pleurodesis. Lidocaine is the most frequently studied local anaesthetic for intrapleural administration.

The maximum dose of lidocaine is 3mg/kg (21ml of a 1% lidocaine solution for a 70kg male), with a maximum dose of 250mg. Table 1 provides STAT doses of intrapleural lidocaine which have been used in practice.

<table>
<thead>
<tr>
<th>Patient weight (kg)</th>
<th>Strength of lidocaine</th>
<th>Volume of lidocaine (ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 75 kg</td>
<td>1 %</td>
<td>20 ml</td>
</tr>
<tr>
<td>Greater than 75 kg</td>
<td>1 %</td>
<td>25 ml</td>
</tr>
</tbody>
</table>

NSAIDS, COX-2 inhibitors and Oral/Intravenous Corticosteroids

In practice, some clinicians advise that NSAIDs, COX-2 inhibitors and corticosteroids should not be administered to patients for 48hrs before and for up to 5 days after the procedure because of a possible reduction in the inflammatory reaction of the pleura to the talc.

Post medications

Analgesia should also be given to the patient after the procedure.

Instructions for use

- Contents are sterile unless package is damaged or opened.
- Remove contents from inner packaging only immediately before use.
- Aseptic standards should be adhered to when removing the contents from the inner packaging.
- Use mixture immediately.
- Shake mixture thoroughly to avoid agglutination.

Procedure/Method for Manufacture – For Ward Staff

- Prepare Sterile Talc Slurry using ‘Steritalc®’ 4g vial using standard aseptic technique.
  - Shake the flask of talc thoroughly to loosen the powder particles.
  - Draw up 40mL sodium chloride 0.9% into a 50mL syringe and inject through the cap of the talc flask.
  - Draw up the talc slurry into a 50mL luer lock syringe and place ready on sterile field.
- It is good practice to label “FOR INTRAPLEURAL ADMINISTRATION ONLY”
- Firstly, administer lidocaine intrapleurally immediately prior to pleurodesis.
- Then administer talc via a drain or a 50ml lavage syringe and inject slowly into the pleural cavity through a chest tube, and then clamp the drain.
- Clear drain itself of talc by flushing in 10ml more saline, clamp for 1 hour only.
- There is no benefit in rotating the patient.
• Unclamp drain and leave on free drainage >24hrs
• Remove drain 24-48 hrs if lung expanded and little remaining effusion
• Repeat CXR

**Monitoring**

There are no recommendations for monitoring within UK guidelines, but the following parameters can be considered: respiratory rate, temperature, pulse, oxygen saturation, blood pressure, chest pain and attributes of the fluid in the drain bottle (eg/ colour, volume, swinging, bubbling). All suspected adverse effects to the use of talc should be reported to the MHRA via the yellow card scheme.

**How to order**

Sterile talc needs to prescribed on the stat part of the chart and is ordered from pharmacy. It is an unlicensed medication and is used for named patients only. Batch numbers are recorded on the label. The brand stocked at SASH is Novatech SA 4g vials.

**References**

2. Manufacturer’s Product Literature for Steritalc. Novatech SA
3. Nelm question and answer How should talc be administered for chemical pleurodesis?